Paper No. 20

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

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Ex parte RAO S. CHINTAKRINDI, Thomas E. MURPHY,
PAUL F. RIETH AND JEFFREY S. STEVENS

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Appeal No. 2001-2578
Application No. 08/977,547[1]

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ON BRIEF

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Before THOMAS, HAIRSTON, and SAADAT, Administrative Patent Judges.

SAADAT, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the Examiner's final rejection of claims 1-13, which are all of the claims pending in this application.

We reverse.

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[1] Application for patent filed November 25, 1997.

BACKGROUND

Appellants' invention relates to a system and method for printing to a virtual printer device in a system including a server and a client wherein users may choose a particular device for real-time printer communications.

Representative independent claim 1 is reproduced as follows:

1. Method for printing to a virtual printer device in a system including a server and a remote client, each said server and said remote client architected to include at least a physical layer and an application layer, comprising the steps of:

establishing a direct persistent application layer connection between said remote client and said server;

establishing agreement between said server and said remote client to negotiate at said application layer connection device protocol options;

communicating a printer name across said application layer connection from said remote client to said server for a virtual printer at said server associated with a printer device at said remote client;

operating a display server at said server selectively for communicating with a virtual display and, responsive to a user request for printing a file, for communicating a printer data stream generated at said server over said direct persistent application layer connection from said virtual printer at said server to said printer device at said remote client.

The prior art references of record relied upon by the Examiner in rejecting the appealed claims are:

Smith et al. (Smith)	5,790,790	Aug. 4, 1998 (filed Oct. 24, 1996)

Klotzbach et al. (Klotzbach)	5,796,742	Aug. 18, 1998 (filed Jan. 14, 1997)
Plakosh et al. (Plakosh)	5,825,991	Oct. 20, 1998 (filed Oct. 30, 1995)

Claims 1-4, 6, 7, 9 and 11-13 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Smith in view of Klotzbach.

Claims 5, 8 and 10 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Smith in view of Plakosh.

Claim 8 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Smith in view of Plakosh and Klotzbach.

We make reference to the answer (Paper No. 19, mailed March 27, 2001) for the Examiner's reasoning, and to the brief (Paper No. 18, filed January 11, 2001)[2] for Appellants' arguments thereagainst.

OPINION

At the outset, we note that Appellants indicate their intention that claims 6, 7 and 9 stand or fall together and claims 1-5, 8, 10, 12 and 13 stand or fall together while claim 11 stands or falls independently of the other claims (brief, page 10). However, Appellants have not, in the arguments section of the brief, provided separate arguments according to this

[2] The appeal brief was re-filed to include an appropriate signature, which was omitted in the originally filed appeal brief (Paper No. 16, filed October 18, 2000).

grouping, as required by 37 CFR § 1.192(c)(7) (July 1, 2000). Therefore, we will consider Appellants' claims grouped as they are argued separately within these groups and correspond to each ground of rejection.

In rejecting claims under 35 U.S.C. § 103, the Examiner bears the initial burden of presenting a prima facie case of obviousness. See In re Rijckaert, 9 F.3d 1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993). To reach a conclusion of obviousness under § 103, the examiner must produce a factual basis supported by teaching in a prior art reference or shown to be common knowledge of unquestionable demonstration. Such evidence is required in order to establish a prima facie case. In re Piasecki, 745 F.2d 1468, 1471-72, 223 USPQ 785, 787-88 (Fed. Cir. 1984). The Examiner must not only identify the elements in the prior art, but also show "some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead the individual to combine the relevant teachings of the references." In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988).

With regard to the rejection of the claims over Smith in view of Klotzbach, the Examiner relies on Smith for disclosing all the claimed steps except for specifying that the step of

establishing agreement is for negotiating device protocol options at the application layer connection (answer, page 5). The Examiner further relies on the TCP/IP protocol of Klotzbach and concludes that it would have been obvious to establish an agreement at the application layer since Klotzbach teaches that, in order to understand the transmitted messages, the two communicating parties should be connected using the right protocol (answer, pages 5 and 6).

With respect to claims 1-5, 8, 10-13, Appellants argue (brief, page 12 & 13) that Smith does not generate the printer data stream at the server and require conversion software in the BFD stores (col. 12, lines 16-26; col. 13, lines 17-29) in order to support different printers (col. 10, lines 52-54). Appellants contrast the document delivery of Smith with the claimed invention in which existing Internet protocols are used to connect the printer directly to the server without the need for generation of the printer data stream at the client side (id.). The Examiner responds by referring to Column 13, line 21 of Smith where the document received by the recipient is taught to be sent/generated from the BFD server (answer, page 17).

We find that Smith describes the function of "Portable Document Receive Client" (PDRC) which may be downloaded and is

used by the recipient of a document for accessing and manipulating documents which were sent to the recipient by the "Binary File Delivery" (BFD) server (col. 13, lines 17-29). Therefore, as pointed out by Appellants, Smith does not generate the document at the server and actually sends the data related to the document to the client where the document is generated.

With regard to the application layer connection recited in all the claims, Appellants argue that the document delivery of Smith does not relate to a communication concept that is done at both the transport level and the application level whereas the appealed claims are limited to communication at the application layer (brief, page 18). Appellants further question the Examiner's interpretation of Figures 9 and 16 in Smith and assert that the TCP/IP communication in Figure 9 is a part of transport manager 114 at the transport layer and cannot be associated with the HTTP protocol since the application interface of Figure 16 shows nothing related to TCP/IP (brief, pages 17 & 19).

In response, the Examiner relies on Column 6, lines 31-34 of Smith and points out that the use of TCP/IP sockets are necessary for connection to the network and communication between the applications (answer, pages 20 & 21). The Examiner also asserts that Appellants have not shown why Smith cannot use TCP/IP

connection associated with the organization of the user session in Figure 9 (answer, page 19).

We are unpersuaded by the Examiner's speculative arguments and find that Appellants have reasonably rebutted the Examiner's arguments and have explained why the TCP/IP transport layer connection cannot establish a persistent application layer connection, as shown in Figure 9 of Smith. What the Examiner relies in Column 6, line 30 of Smith is actually a list of the possible shared components that may be implemented as needed (col. 6, lines 31 & 32) and does not conclusively teach the implementation of both TCP/IP sockets and HTTP server interface for the connection. Furthermore, Appellants have repeatedly argued that communication and negotiations among networks can only be done between their corresponding layers (brief, pages 5-7) and have pointed out the inconsistency in Figure 9 where the communication appears to be between an application layer and a transport layer. As a result, the burden is shifted back to the Examiner to rebut and present arguments as to why the TCP/IP connection in Figure 9 provides communication between the application and transport layers. Additionally, Appellants' reference to Figure 16 of Smith, in which a "portable document send client application" and a "portable document receive client

application" provide the delivery of documents without mentioning the TCP/IP transport layer communication (col. 10, lines 14-18), constitutes sufficient support for shifting the burden back to the Examiner.

Regarding the combination of Smith and Klotzbach, Appellants assert that the negotiations described by Smith are related to different kinds of protocols which, although all operate on top of the TCP/IP protocols, are different at the negotiation stage (brief, page 14). Furthermore, Appellants state that the combination of Smith and Klotzbach is improper since Klotzbach describes a communication protocol in the data link and the physical layers of the OSI model which cannot be combined with the application layer communication of Smith (brief, page 21). Appellants argue that since two different layers using different protocols do not talk to each other, they may not be properly combined to arrive at the instant claims (id.).

The Examiner acknowledges the absence of the step of establishing agreement for negotiating device protocol options at the application layer in Smith and adds the teaching from Klotzbach (col. 8, lines 30-45 and col. 10, lines 10-25) which relates to negotiating protocol options (answer, page 20). Additionally, the Examiner relies on Klotzbach (col. 20, lines

43-46) for providing the rationale for to making such combination and asserts that the desire to ensure that the communicating parties use the right protocol would have made it obvious to one of ordinary skill in the art to combine the references (answer, page 20).

After a review of Klotzbach, we find ourselves in agreement with Appellants' position that negotiating the device protocol in Klotzbach is performed in the physical layer and may not be properly combined with Smith. Klotzbach uses a bi-directional wire-line interface to a local area network which provides a physical connection among the users and the server (col. 1, lines 1-6 & 29-37). The Examiner has not pointed to any teaching in the reference, nor do we find any, that corresponds to negotiating device protocol options, or any device communications, at the application layer connection. Additionally, we find that what the Examiner relies on as the reason for combining the references, "Protocol" in Column 20, lines 43-45 (answer, page 20) and "Telnet" in Column 22, lines 11 & 12 (answer, page 17), are merely entries under the "GLOSSARY" section of the Klotzbach disclosure. These general descriptions represent the terminology common in the art and have nothing to do with the specific disclosed invention or why protocol

negotiations in the physical layer may be possible or applied to the communications at the application layer of Smith.

We note again that a rejection under 35 U.S.C. §103 must be based on whether there is teaching, motivation, or suggestion to select and combine the references based on objective evidence of record. Therefore, the examiner must identify a reason, suggestion, or motivation which would have led an inventor to combine those references. Pro-Mold & Tool Co. V. Great Lakes Plastics, Inc., 75 F.3d 1568, 1573, 37 USPQ2d 1626, 1629, (Fed. Cir. 1996). Additionally, "the Board must not only assure that the requisite findings are made, based on evidence of record, but must also explain the reasoning by which the findings are deemed to support the agency's conclusion." In re Lee, 277 F.3d 1338, 1344, 61 USPQ2d 1430, 1434 (Fed. Cir. 2002).

Although we acknowledge that Klotzbach describes some form of agreement related to transmission protocol, it neither performs the negotiation at the application layer nor suggests applying the protocol negotiations to connections at the application layer. Therefore, contrary to the Examiner's arguments, we find no teaching or suggestion in the combination of Smith and Klotzbach in support of the obviousness of the claimed establishing agreement for negotiating device protocol options at the application layer. The Examiner has further

failed to establish how the presence of the terms "protocol" and "Telnet" in the glossary section of Klotzbach suggests that protocol negotiations over the wires at the physical layer may be applied to the document delivery at the application layer in Smith.

Based on our analysis above, we find that the Examiner has failed to set forth a prima facie case of obviousness because the combination of Smith and Klotzbach neither teach nor would have suggested to one of ordinary skill in the art the claimed communicating to a printer and negotiating the device protocol options at the application layer connection. Accordingly, we do not sustain the 35 U.S.C. § 103 rejection of claims 1-4, 6, 7, 9 and 11-13 over Smith and Klotzbach.

With respect to the rejection of claims 5, 8 and 10, the Examiner relies on Plakosh for teaching buffers in the printer server for storing the parameter data and a buffer manager for scanning the buffer and retrieving the stored parameter data (answer, page 13). Appellants argue that Plakosh stores the printer data itself in a spool buffer until the data can be sent to the printer, which is the basic printer management (brief, pages 16 & 22) and cannot perform the claimed negotiation supported by the subnegotiation buffer (brief, pages 17 & 22).

Plakosh relates to a high-volume printer server including a buffer manager which accepts data streams and controls the storage of data on spool or image pool/buffer (col. 4, line 65 to col. 5, line 8). Although we agree with the Examiner (answer, page 13) that Plakosh compresses the data stream in the buffer manager before sending the data to the printer (col. 5, lines 60-65), the buffer does not include the recited user definable variable specifying a device name for a virtual printer. Additionally, Plakosh does not teach the claimed communication across the application layer to print to a virtual device and therefore, cannot cure the deficiencies of Smith as discussed above. Accordingly, the 35 U.S.C. § 103 rejection of claims 5, 8 and 10 over Smith and Plakosh is not sustained.

Turning now to the 35 U.S.C. § 103 rejection of claim 8 over Smith, Klotzbach and Plakosh, we rely on our discussion of the references above and note that the combination fails to overcome the above discussed deficiencies of the applied prior art. Therefore, the 35 U.S.C. § 103 rejection of claim 8 over Smith, Klotzbach and Plakosh cannot be sustained.

CONCLUSION

In view of the foregoing, the decision of the Examiner to reject claims 1-18 under 35 U.S.C. § 103 is reversed.

REVERSED

JAMES D. THOMAS Administrative Patent Judge	)
KENNETH W. HAIRSTON Administrative Patent Judge	) BOARD OF PATENT) APPEALS AND) INTERFERENCES
MAHSHID D. SAADAT Administrative Patent Judge	)

MDS/ki

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